

What is Claimed:

1. A monitoring system, comprising:

a central gateway configured to interface with the monitoring system to a WAN; and

a network of monitoring devices, each monitoring device configured to acquire and transmit monitoring data to the central gateway, to receive monitoring data from other monitoring devices, and to relay the received monitoring data to the central gateway.
2. The monitoring system of claim 1, wherein the network of monitoring devices further comprises a plurality of intermediate devices dedicated to relaying data within the monitoring system.
3. The monitoring system of claim 2, wherein the monitoring devices, intermediate devices, and the central gateway comprise short range, low power radio modules.
4. The monitoring system of claim 1, wherein the central gateway is configured to forward the monitoring data to a network-based monitoring application that resides on or is interfaced to the WAN.
5. The monitoring system of claim 4, wherein the network-based monitoring application is configured to send configuration data to an individual monitoring device in the network of monitoring devices through the central gateway.

6. The monitoring system of claim 1, wherein communication between monitoring devices in the network of monitoring devices and between the network of monitoring devices and the central gateway occurs over packet based communication links.

7. The monitoring system of claim 1, wherein the central gateway is configured to interface the monitoring system to the WAN over a wireless communication interface.

8. A monitoring system, comprising:

- a central gateway configured to interface the monitoring system to a network-based monitoring application; and
- a network of radio telemetry devices, each radio telemetry device comprising:
 - a monitoring device,
 - a radio module configured to communicate with other radio telemetry devices and the central gateway, and
 - a processor coupled with the radio module and the monitoring device, the processor configured to:
 - receive monitoring data from the monitoring device,
 - receive a command to establish a circuit switched data communication with the network-based monitoring application from the monitoring device, and
 - establish a packet data connection with the network-

based monitoring application through the central gateway using the radio module in response to the received command.

9. The monitoring system of claim 8, wherein the network-based monitoring application is configured to establish a packet data communication with at least some of the radio telemetry devices through the central gateway in order to access monitoring data and/or configure the monitoring device portion of the radio telemetry devices.

10. The monitoring system of claim 8, further comprising a plurality of interconnecting networks of radio telemetry devices.

11. The monitoring system of claim 10, wherein at least some of the plurality of interconnecting networks are formed on an ad hoc basis.

12. The monitoring system of claim 8, wherein the network of radio telemetry devices includes modified radio telemetry devices dedicated to relaying data within the monitoring system.

13. A radio telemetry device, comprising:
a monitoring device,
a radio module configured to communicate with other radio telemetry devices and a central gateway, and
a processor coupled with the radio module and the monitoring device, the processor configured to:
receive monitoring data from the monitoring device,

receive a command to establish a circuit switched data communication with a network-based monitoring application from the monitoring device, and

establish a packet data connection with the network-based monitoring application through a central gateway using the radio module in response to the received command.

14. The radio telemetry device of claim 13, wherein the network-based monitoring application is configured to establish a packet data communication with the radio telemetry device through the central gateway in order to access monitoring data and/or configure the monitoring device.

15. The radio telemetry device of claim 13, further configured to relay monitoring data from other radio telemetry devices to the central gateway so that it can be forwarded to the network-based monitoring application.

16. The radio telemetry device of claim 13, configured to join a network of radio modules on an ad hoc basis.

17. The radio telemetry device of claim 13, wherein the radio module is a Bluetooth™ radio module.

18. The radio telemetry device of claim 13, wherein the radio module is a HomeRF™ radio module.

19. The radio telemetry device of claim 13, wherein the radio module is a short range, low power radio module.

20. The radio telemetry device of claim 13, configured to be part of a plurality of interconnected networks of radio telemetry devices.

21. A radio telemetry device, comprising:

a monitoring interface, configured to interface the device to a monitoring device;

a radio module configured to communicate with other radio telemetry devices and to a central gateway; and

a processor coupled with the monitoring interface and with the radio module, the processor configured to:

receive monitoring data through the monitoring interface,

transmit the monitoring data to the central gateway using the radio module,

receive monitoring data from other radio telemetry modules using the radio module, and

transmit the received monitoring data to the central gateway using the radio module.

22. The radio telemetry device of claim 21, wherein the radio module is a short range, low power radio module.

23. The radio telemetry device of claim 21, configured to be part of a network of radio telemetry devices.

24. The radio telemetry device of claim 23, wherein the network of radio telemetry devices is formed on an ad hoc basis.

25. A method of radio telemetry using a monitoring device configured to operate in a network of monitoring devices, comprising:

acquiring monitoring data;

receiving a command to establish a circuit switched data communication with a network-based monitoring; and

establishing a packet data connection with the network-based monitoring application through a network of radio telemetry devices in response to the command to establish a circuit switched data communication.

26. The method of claim 25, further comprising:

receiving monitoring data from another radio telemetry device or from a modified radio telemetry device; and

transmitting the received monitoring data to another radio telemetry device or to a modified radio telemetry device in the network of radio telemetry devices or to a central gateway.

27. The method of claim 25, further comprising:

receiving configuration or other command and control data from

another radio telemetry device, from a modified radio telemetry device, or
from the central gateway; and

transmitting the received configuration or other command and
control data to another radio telemetry device or to a modified radio
telemetry device in the network of radio telemetry devices.